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ABSTRACT OF THE DISCLOSURE

A programmable frame splitter includes a plurality of programmable routers connected to a communication line. The routers contain logic to specify which bits of a frame of serial data are passed to an output of each of the routers. A control unit is provided having logic to control loading and startup of the routers. A field processing unit is provided to receive a bit-clock-out signal from each of the routers and serial data from the communication line. The field processing unit splits the frame of serial data into component fields and performs processing on the field.